

AMENDMENTS TO THE CLAIMS

1.- 20. (Cancelled)

21. (New) A method for processing location information request initiated by a User Equipment (UE), comprising:

a target UE requesting a Central Network (CN) for location information of the target UE, and the CN obtaining a location estimate of the target UE;

the CN sending the location estimate of the target UE to a Visited Gateway Mobile Location Center (V-GMLC) of the target UE.

22. (New) The method according to claim 21, wherein, the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE comprises:

according to a pre-stored V-GMLC address information, the CN sending the location estimate of the target UE to the V-GMLC.

23. (New) The method according to claim 21, wherein, after the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE, further comprising:

the V-GMLC generating charging information of the target UE.

24. (New) The method according to claim 21, wherein, after the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE, further comprising:

the V-GMLC returning to the CN a response for the location estimate of the target UE.

25. (New) The method according to claim 21, wherein, the step of the target UE requesting the CN for location information of the target UE further comprises:

the target UE providing the CN with a requester identifier;

the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE further comprises:

the CN providing the V-GMLC with the requester identifier; and

after the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE, further comprising:

the V-GMLC sending the location estimate of the target UE to the requester.

26. (New) The method according to claim 25, wherein, the step of the V-GMLC sending the location estimate of the target UE to the requester comprises:

the V-GMLC determining whether the V-GMLC can directly access the requester according to the requester identifier, if the V-GMLC can directly access the requester according to the requester identifier, the V-GMLC directly sending the location estimate of the target UE to the requester; otherwise, according to the requester identifier, the V-GMLC finding a GMLC that can directly access the requester, and sending the location estimate of the target UE to the requester through the GMLC.

27. (New) The method according to claim 25, wherein, after the step of the V-GMLC sending the location estimate of the target UE to the requester, further comprising:

the requester returning a first response for the location estimate of the target UE to the V-GMLC, and the V-GMLC returning a second response for the location estimate of the target UE to the CN.

28. (New) The method according to claim 26, wherein, after the step of the V-GMLC directly sending the location estimate of the target UE to the requester, further comprising:

the requester returning a first response for the location estimate of the target UE to the V-GMLC, and the V-GMLC returning a second response for the location estimate of the target UE to the CN; and

after the step of the V-GMLC finding the GMLC that can directly access the requester and sending the location estimate of the target UE to the requester through the GMLC, further comprising:

the requester returning a first response for the location estimate of the target UE to the GMLC, the GMLC returning a second response for the location estimate of the target UE to the V-GMLC, and the V-GMLC returning a third response for the location estimate of the target UE to the CN.

29. (New) The method according to claim 26, wherein,

the step of the target UE requesting the CN for the location information of the target UE further comprises:

the target UE providing address information of the GMLC that can access the requester to the CN;

the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE further comprises:

the CN providing the address information of the GMLC to the V-GMLC; and

the step of the V-GMLC sending the location estimate of the target UE to the requester comprises:

the V-GMLC receiving the location estimate of the target UE and sending the location estimate of the target UE as well as the requester identifier to the GMLC according to the address information of the GMLC; the GMLC receiving the location estimate of the target UE and sending the location estimate of the target UE to the requester according to the requester identifier.

30. (New) The method according to claim 29, wherein, after the step of the GMLC receiving the location estimate of the target UE and sending the location estimate of target UE to the requester according to the requester identifier, further comprising:

the requester returning a first response for the location estimate of the target UE to the GMLC, the GMLC returning a second response for the location estimate of the target UE to the V-GMLC, and the V-GMLC returning a third response for the location estimate of the target UE to the CN.

31. (New) The method according to claim 21, wherein, the CN is any one of:

a Mobile Switch Center (MSC), an MSC Server and a Serving GPRS Support Node.

32. (New) The method according to claim 21, wherein, the step of the target UE requesting the CN for location information of the target UE comprises:

the target UE sending an LCS MO-LR Location Services Invoke to the CN.

33. (New) A method for processing location information request initiated by a User Equipment (UE), comprising:

a target UE requesting a Center Network (CN) for location information and providing a requester identifier, the CN obtaining the location estimate of the target UE;

the CN sending the location estimate of the target UE to a V-GMLC of the target UE;

the V-GMLC sending the location estimate of the target UE to a H-GMLC; and

the H-GMLC sending the location estimate of the target UE to the requester.

34. (New) The method according to claim 33, wherein, after the step of the CN sending the location estimate of the target UE to a V-GMLC of the target UE, further comprising:

the V-GMLC generating charging information of the target UE.

35. (New) The method according to claim 33, wherein, after the step of the V-GMLC sending the location estimate of the target UE to a H-GMLC, further comprising;

the H-GMLC generating charging information of the target UE.

36. The method according to claim 33, wherein, the step of the H-GMLC sending the location estimate of the target UE to the requester comprises:

the H-GMLC determining whether the H-GMLC can directly access the requester according to the requester identifier, if the H-GMLC can directly access the requester according to the requester identifier, the H-GMLC directly sending the location estimate of the target UE to the requester; otherwise, according to the requester identifier, the H-GMLC finding a GMLC that can directly access the requester and sending the location estimate of the target UE to the requester through the GMLC.

37. (New) The method according to claim 33, wherein, after the step of the H-GMLC sending the location estimate of the target UE to the requester, further comprising:

the requester returning a response for the location estimate of the target UE to the H-GMLC, the H-GMLC returning a response for the location estimate of the target UE to the V-GMLC, and the V-GMLC returning a response for the location estimate of the target UE to the CN.

38. (New) The method according to claim 36, wherein, after the H-GMLC directly sending the location estimate of the target UE to the requester, further comprising:

the requester returning a first response for the location estimate of the target UE to the H-GMLC, the H-GMLC returning a second response for the location estimate of the target UE to the V-GMLC and the V-GMLC returning a third response for the location estimate of target UE to the CN; and

after the step of the H-GMLC sending the location estimate of the target UE to the requester through the found GMLC, further comprising:

the requester returning a response for the location estimate of the target UE to the GMLC, the GMLC returning a response for the location estimate of the target UE to the H-GMLC, the H-GMLC returning a response for the location estimate of the target UE to the V-GMLC and the V-GMLC returning a response for the location estimate of target UE to the CN.

39. (New) The method according to claim 33, wherein,

the step of the target UE requesting the CN for location information and providing the requester identifier further comprises:

the target UE providing address information of the GMLC that can access the requester to the CN;

the step of the CN sending the location estimate of the target UE to the V-GMLC of the target UE further comprises:

the CN providing the address information of the GMLC to the V-GMLC;

the step of the V-GMLC sending the location estimate of the target UE to the H-GMLC further comprises:

the V-GMLC providing the address information of the GMLC to the H-GMLC; and

the step of the H-GMLC sending the location estimate of the target UE to the requester comprises:

the H-GMLC receiving the location estimate of the target UE and sending the location estimate of the target UE as well as the requester identifier to the GMLC according to the address information of the GMLC;

the GMLC receiving the location estimate of the target UE and sending the location estimate of the target UE to the requester according to the requester identifier.

40. (New) The method according to claim 39, wherein, after the step of the GMLC receiving the location estimate of the target UE and sending the location estimate of the target UE to the requester according to the requester identifier, further comprising:

the requester returning a first response for the location estimate of the target UE to the GMLC, the GMLC returning a second response for the location estimate of the target UE to the H-GMLC, the H-GMLC returning a third response for the location estimate of the target UE to the V-GMLC and the V-GMLC returning a fourth response for the location estimate of target UE to the CN.

41. (New) The method according to claim 33, wherein, the CN is any one of:
a Mobile Switch Center (MSC), an MSC Server and a SGSN.

42. (New) The method according to claim 33, wherein, the step of the target UE requesting the CN for location information comprises:

the target UE sending an LCS MO-LR Location Services Invoke to the CN.